

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (currently amended). A composition comprising a protein in crystalline form wherein the protein ~~has at least 90% identity with~~ consists of residues ~~126-388~~ 125-391 of SEQ-ID No. SEQ ID NO: 1.
2. (cancelled)
3. (cancelled)
4. (currently amended) ~~A-The~~ composition according to claim 1 wherein the protein crystal diffracts X-rays for a determination of structure coordinates to a resolution greater of a value equal to or less than 3.0 Angstroms.
5. (currently amended) ~~A-The~~ composition according to claim 1 wherein the protein crystal has a crystal lattice in a P6₁22 space group.
6. (currently amended) ~~A-The~~ composition according to claim 1 wherein the protein crystal has a crystal lattice having unit cell dimensions, +/- 5%, of a=80.45Å, b= 80.45Å and c=172.18Å.
7. (cancelled)
8. (cancelled)

9. (currently amended) A method for forming a crystal of a protein comprising:
forming a crystallization volume comprising: a precipitant solution and a protein
~~wherein the protein has at least 90% identity with that consists of residues 126-388-125-391~~
of ~~SEQ. ID No.~~ SEQ ID NO: 1; and
storing the crystallization volume under conditions suitable for crystal formation of
the protein.
10. (cancelled)
11. (cancelled)
12. (currently amended) ~~A-The~~ method according to claim 9 wherein the protein
diffracts X-rays for a determination of structure coordinates to a resolution greater of a value
equal to or less than 3.0 Angstroms.
13. (currently amended) ~~A-The~~ method according to claim 9 wherein the protein crystal
has a crystal lattice in a P6₁22 space group.
14. (currently amended) ~~A-The~~ method according to claim 9 wherein the protein crystal
has a crystal lattice having unit cell dimensions, +/- 5%, of a=80.45Å, b= 80.45Å and
c=172.18Å.
15. (currently amended) ~~A-The~~ method according to claim 9, wherein a protein crystal is
formed, the method further comprising diffracting the protein crystal to produce a diffraction
pattern and solving the structure of the protein from the diffraction pattern.
- 16 (cancelled).
17. (currently amended) A composition comprising ~~an isolated a~~ protein consisting of
~~SEQ. ID No.~~ SEQ ID NO: 3.

18. (withdrawn) A method of identifying an entity that associates with a protein comprising:
taking structure coordinates from diffraction data obtained from a crystal of a protein that has at least 90% identity with SEQ. ID No. 3; and
performing rational drug design using a three dimensional structure that is based on the obtained structure coordinates.
19. (withdrawn) A method according to claim 18 wherein the protein has at least 95% identity with SEQ. ID No. 3.
20. (withdrawn) A method according to claim 18 wherein the protein crystal has a crystal lattice having unit cell dimensions, +/- 5%, of $a=80.45\text{\AA}$, $b=80.45\text{\AA}$ and $c=172.18\text{\AA}$.
21. (withdrawn) A method according to claim 18 wherein the protein crystal has a crystal lattice in a $P6_122$ space group.
22. (withdrawn) A method according to claim 18, the method further comprising selecting one or more entities based on the rational drug design and contacting the selected entities with the protein.
23. (withdrawn) A method according to claim 18, the method further comprising measuring an activity of the protein when contacted with the one or more entities.
24. (withdrawn) A method according to claim 18, the method further comprising comparing activity of the protein in a presence of and in the absence of the one or more entities; and selecting entities where activity of the protein changes depending whether a particular entity is present.

25. (withdrawn) A method according to claim 18, the method further comprising contacting cells expressing the protein with the one or more entities and detecting a change in a phenotype of the cells when a particular entity is present.
26. (new) The method according to claim 15 wherein the protein crystal has a crystal lattice having unit cell dimensions, +/- 5%, of $a=80.45\text{\AA}$, $b=80.45\text{\AA}$ and $c=172.18\text{\AA}$.
27. (new) The method according to claim 15, the method further comprising:
performing rational drug design using the solved structure; and
identifying an entity that associates with the protein.
28. (new) The method according to claim 27 further comprising selecting one or more entities based on the rational drug design and contacting the selected entities with the protein.
29. (new) The method according to claim 27 further comprising measuring an activity of the protein when contacted with the one or more entities.
30. (new) A composition comprising a protein consisting of residues 125-391 of SEQ ID NO: 1.